

REMARKS/ARGUMENTS

Claims 1, 2, 5, 7, 9-11, and 14-21 remain in this application. Claim 1 is amended to add the limitation of claim 8 in a narrower form. Claim 2 is amended to be consistent with claim 1.

5 Claim 8 is canceled. Claim 11 is amended to be in independent form. Claim 14 is amended to depend from amended claim 1. Claim 16, previously allowed, is amended to be dependent from previously allowed claim 15 without change of scope.

Art rejection – US 3,548,241 (hereinafter "Rasch") in view of US 6,043,603 (Weinhardt)

10 To the extent that the rejection over Rasch in view of Weinhardt might be maintained against claims 1, 2, 5, 7 or 9-11, reconsideration is requested because nothing in this combination suggests the claimed invention.

15 Rasch teaches a lamp having a main amalgam and an auxiliary amalgam. The auxiliary amalgam is a strip of metal 20 secured to the edge of an annular metal cap 19 which encloses the electrode coil 18 and is supported by a wire embedded in the stem press. However, nothing in Rasch suggests that the auxiliary amalgam should or might be arranged to extend substantially planar and transverse to the lamp longitudinal axis, in the proximity of and substantially in line with one of the electrodes.

20 Weinhardt teaches a metal plate carrier 12 welded onto one of the lead-in wires. The plate has a mercury-containing coating 13 on a side facing the electrode filament 11a and a getter layer on the opposite side. The mercury-containing coating is the sole source of mercury with which the lamp is dosed (col. 2, lines 57-62), and it is "particulary important fully to release the mercury bound up in the mercury-containing coating" (col. 2, lines 63-67) to produce the optimum mercury vapor pressure in the lamp. Accordingly the various embodiments of Weinhardt do not teach use as 25 a main amalgam, which those of ordinary skill know functions to regulate mercury pressure as a function of temperature. Neither does Weinhardt suggest the claimed auxiliary amalgam.

30 It does not appear that the structure of Weinhardt Figs. 1-4 and 7 will function well as an auxiliary amalgam. The plate 12 is spaced from the electrode by a distance approximately equal to 3/4 the diameter of the tubular envelope 10. Therefore plates 12, 22 and 42 cannot properly be described as being "in the proximity" of the electrodes, and are too far from the electrode to be

heated rapidly. As a result any mercury release resulting from heating by the electrode will be quite slow.

Further, all the Weinhardt embodiments in which the metal plate carrier lies in a plane transverse to the lamp axis (Figs. 1-4 and 7) support the carrier by welding it to one of the 5 supporting leads. Thus these lamps will suffer from the shortcomings described from line 30 of page 3 to line 8 of page 4 of the instant application. In no way do they suggest support from an electrically insulating body.

The other Weinhardt embodiments show the support plate to be arranged at an angle greater than 45° from the perpendicular to the lamp axis. Col. 2, lines 17, 28 suggest angles 10 between 30° and 60°. As a result heating by radiation from the electrode will progress slowly for Figs. 5 and 6, particularly because the portion of the plate 32 closest to the electrode will be conducting heat equally to the getter (which has nothing to do with speeding run-up, and whose function is substantially limited to original manufacture) as to the mercury-containing portion. Similarly, half of the radiant heat impinging on the Fig. 8 and 9 plate 52 will be substantially 15 valueless in raising the mercury pressure rapidly during lamp start-up.

Finally, nothing in Weinhardt refers to the function of speeding lamp run-up. The mercury-containing coating is described merely as an improved way to dose the lamp with a small amount of mercury. This teaches away from using any of the Weinhardt structure to speed run-up. Thus one of ordinary skill will not look to Weinhardt to improve run-up time

20 Accordingly, one of ordinary skill looking at Weinhardt will not be led to combine its teachings with Rasch in a way which will suggest the invention of instant claim 1, 2, 5, 7 or 9-11.

Claim 11

Paper number 15 states that it would be obvious to provide the claimed range of distance,

based on optimization. However, applicants note that the embodiments disclosed do not follow this logic. The closer the embodiment comes to providing a quick-heating configuration, the greater the distance between electrode and amalgam. Rasch appears to place the strip 20 at the lower end of the cap 19, which is farthest from the electrode. Weinhardt describes a lamp diameter a 16 mm or 5 less, but even if a diameter of 8 mm were to be posited, the only transverse planar embodiments show the plate to be closer to the stem than to the electrode, spaced about 3/4 the tube diameter from the electrode. This teaches away from considering distances as low as 3 mm or less.

10 All the non-allowed claims have been shown to be patentable over the applied patent combination. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

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Respectfully submitted,

By David R. Treacy
David R. Treacy, Reg. 25,244
Consulting Patent Attorney
(207) 655-3432
After Nov. 2, 2003 (914) 738-2336

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